# Estimates for Selected Risk Factors and Health Indicators by Michigan Prosperity Region

## **State of Michigan**

# Michigan Behavioral Risk Factor Surveillance System (Michigan BRFSS)

2015-2017

Lifecourse Epidemiology and Genomics Division Bureau of Epidemiology and Population Health Michigan Department of Health and Human Services

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#### Introduction

The Michigan Behavioral Risk Factor Survey (MiBRFS) is an annual, statewide telephone survey of Michigan adults aged 18 years and older that is conducted through a collaborative effort among the Population Health Surveillance Branch (PHSB) of the Centers for Disease Control and Prevention (CDC), the Michigan State University Institute for Public Policy and Social Research (IPPSR), and the Michigan Department of Health and Human Services. Michigan BRFS data contribute to the national Behavioral Risk Factor Surveillance System that is managed by the PHSB at the CDC.

For this report, data from the 2015-2017 Michigan BRFS were combined. The total sample sizes by year were: 10,889 in 2017, 12,024 in 2016, and 8,935 in 2015. Not all questions were included annually in the survey. The table subtitles indicate which years were used for that particular analysis.

For the 2015 through 2017 Michigan Behavioral Risk Factor Surveys, the sample of land line telephone numbers that were utilized for data collection was selected using a list-assisted, random-digit-dialed methodology with a disproportionate stratification based on phone bank density, and whether or not the phone numbers were directory listed. The sample of cell phone numbers used within each survey year was randomly selected from dedicated cellular telephone banks sorted on the basis of area code and exchange within the State of Michigan.

Iterative proportional fitting or raking was the weighting methodology used to make the 2015-2017 Michigan BRFS data representative of the current Michigan adult population. Estimates based on this methodology were weighted to adjust for the probabilities of selection and a raking adjustment factor that adjusted for the distribution of Michigan adults by telephone source (land line vs. cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status. No additional weighting factors were computed at the regional level, thus the weights used might not always provide accurate regional estimates, particularly when regional demographic distributions vary greatly from that of the state.

In 2017, Michigan BRFS data from 2015-2017 were analyzed by Michigan Prosperity region. A map identifying each of Michigan's ten prosperity regions is included on the following page. Population-based prevalence estimates and asymmetric confidence intervals were calculated for indicators of health status, health risk behaviors, clinical preventive practices, and chronic conditions among the adult population in Michigan. All analyses were performed in SAS-Callable SUDAAN®, a statistical computing that is designed for complex sample surveys.

In an effort to provide the most reliable information possible, prevalence estimates are suppressed if they are based on a denominator of less than 50 respondents or have a relative standard error of greater than 30%.

Due to the BRFSS methodology changes that took place in 2011, the estimates provided within the following tables should not be compared to Michigan BRFSS estimates from years prior to 2011. Methodology changes also took place in 2017 for Fruit and Vegetable Consumption; therefore, these variables were excluded from multi-year analysis.

If you have any questions regarding any of the estimates within the following tables, please contact Allison Murad at MuradA@michigan.gov.

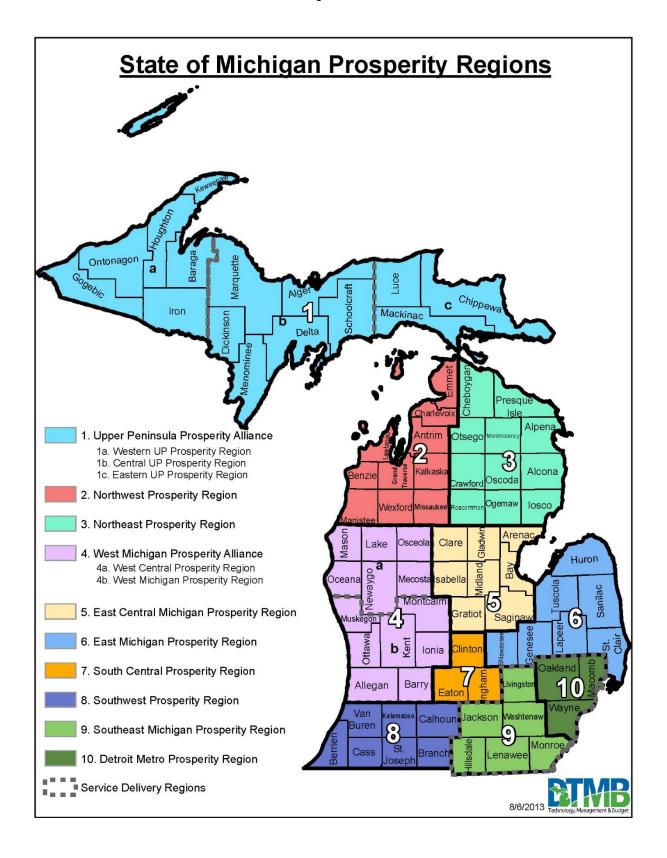


Table 1: Health Status by Prosperity Region Michigan BRFSS, 2015-2017 Combined					
	General Health, Fair or Poor <sup>a</sup> 95% Confidence Interval				
Michigan Total	18.1	(17.5-18.6)			
Prosperity Region					
Upper Peninsula	19.4	(16.6-22.5)			
Northwest	17.8	(15.4-20.5)			
Northeast	24.2	(20.4-28.4)			
West Michigan	16.0	(14.7-17.4)			
East Central Michigan	18.7	(16.5-21.0)			
East Michigan	20.6	(18.9-22.5)			
South Central	16.7	(14.5-19.2)			
Southwest	18.6	(16.7-20.6)			
Southeast Michigan	15.1	(13.6-16.8)			
Detroit Metro	19.1	(18.1-20.1)			

 $<sup>^{\</sup>rm a}$  Among all adults, the proportion who reported that their health, in general, was either fair or poor. (N = 31,792)

Table 2: Health Status on at Least 14 Days in the Past Month by Prosperity Region Michigan BRFSS, 2015-2017 Combined

	Poor Ph	Poor Physical Health <sup>a</sup>		Poor Mental Health <sup>b</sup>		Activity Limitation <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	
Michigan Total	9.3	(8.9-9.7)	8.5	(8.1-8.9)	9.8	(9.4-10.3)	
Prosperity Region							
Upper Peninsula	10.1	(8.0-12.8)	7.8	(5.7-10.5)	10.9	(8.8-13.4)	
Northwest	8.7	(7.0-10.8)	7.8	(6.1-9.9)	9.6	(7.9-11.8)	
Northeast	10.4	(8.0-13.3)	6.8	(4.9-9.6)	10.8	(8.3-13.9)	
West Michigan	9.2	(8.2-10.3)	7.7	(6.8-8.7)	8.7	(7.7-9.8)	
East Central Michigan	8.8	(7.2-10.6)	8.1	(6.5-10.1)	10.0	(8.3-11.9)	
East Michigan	11.2	(9.8-12.8)	8.8	(7.5-10.2)	12.1	(10.6-13.7)	
South Central	9.0	(7.3-11.0)	9.3	(7.5-11.5)	8.6	(7.0-10.6)	
Southwest	9.4	(8.0-11.0)	9.5	(8.0-11.3)	9.7	(8.3-11.4)	
Southeast Michigan	9.2	(8.0-10.7)	9.1	(7.8-10.6)	8.6	(7.4-10.0)	
Detroit Metro	9.2	(8.5-9.9)	8.8	(8.1-9.6)	10.4	(9.7-11.2)	

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported 14 or more days of poor physical health, which includes physical illness and injury, during the past 30 days. (N = 31,394)

Among all adults, the proportion who reported 14 or more days of poor mental health, which includes stress, depression, and problems with emotions, during the past 30 days. (N = 31,461)

c Among all adults, the proportion who reported 14 or more days in the past 30 days in which either poor physical health or poor mental health kept respondents from doing their usual activities, such as self-care, work, and recreation. (N = 31,565)

Table 3: Mean Number of Days of Poor Physical Health, Poor Mental Health, and Activity
Limitations by Prosperity Region
Michigan BRFSS, 2015-2017 Combined

	Poor Phy	Poor Physical Health <sup>a</sup>		ntal Health <sup>b</sup>	Activity Limitation <sup>c</sup>	
	Mean # of days	95% Confidence Interval	Mean # of days	95% Confidence Interval	Mean # of days	95% Confidence Interval
Michigan Total	4.4	(4.3-4.5)	4.1	(4.0-4.2)	3.0	(2.9-3.1)
Prosperity Region						
Upper Peninsula	4.9	(4.2-5.6)	3.9	(3.3-4.6)	1,081	3.1
Northwest	4.2	(3.6-4.8)	3.8	(3.3-4.4)	1,414	2.8
Northeast	5.9	(5.0-6.8)	4	(3.2-4.8)	709	3.3
West Michigan	4.2	(3.9-4.5)	3.8	(3.5-4.1)	5,232	2.7
East Central Michigan	4.4	(3.9-4.9)	4.2	(3.7-4.7)	1,875	2.9
East Michigan	5.2	(4.8-5.7)	4.2	(3.8-4.6)	2,803	3.6
South Central	4.1	(3.7-4.6)	4.3	(3.8-4.8)	1,514	2.8
Southwest	4.5	(4.0-4.9)	4.2	(3.8-4.7)	2,096	3.1
Southeast Michigan	4.2	(3.8-4.6)	4.1	(3.8-4.5)	3,983	2.7
Detroit Metro	4.4	(4.2-4.6)	4.3	(4.1-4.5)	9,838	3.2

<sup>&</sup>lt;sup>a</sup> Among all adults, the mean number of days during the past 30 days in which physical health, including illness and injury, was not good. (N = 31,394)

<sup>&</sup>lt;sup>b</sup> Among all adults, the mean number of days during the past 30 days in which mental health, including stress, depression, and problems with emotions, was not good. (N = 31,461)

c Among all adults, the mean number of days during the past 30 days in which poor physical health or poor mental health kept respondent from doing their usual activities, such as self-care, work, and recreation. (N = 31,565)

Table 4: Disability by Prosperity Region Michigan BRFSS, 2015-2017 Combined

	Total	Total Disability <sup>a</sup>		ity Limitation <sup>b</sup>	Used Special Equipment <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	26.3	(25.6-26.9)	23.7	(23.1-24.3)	10.5	(10.1-11.0)
Prosperity Region						
Upper Peninsula	27.6	(24.5-31.1)	25.4	(22.3-28.7)	10.2	(8.2-12.6)
Northwest	26.5	(23.7-29.6)	24.7	(21.9-27.7)	8.8	(7.2-10.6)
Northeast	33.2	(29.2-37.5)	30.5	(26.5-34.8)	12.9	(10.3-16.0)
West Michigan	24.2	(22.8-25.7)	21.8	(20.4-23.2)	9.6	(8.6-10.6)
East Central Michigan	28.4	(25.7-31.3)	26.6	(23.9-29.4)	10.4	(8.8-12.3)
East Michigan	28.7	(26.8-30.8)	26.2	(24.3-28.2)	12.5	(11.1-14.0)
South Central	23.7	(21.1-26.5)	21.4	(18.8-24.1)	8.7	(7.1-10.6)
Southwest	27.6	(25.3-30.0)	25.4	(23.2-27.7)	10.7	(9.3-12.3)
Southeast Michigan	25.4	(23.6-27.3)	22.5	(20.7-24.3)	9.2	(8.2-10.5)
Detroit Metro	26.3	(25.2-27.4)	23.5	(22.5-24.5)	11.3	(10.5-12.0)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported being limited in any activities because of physical, mental, or emotional problems, or reported that they required use of special equipment (such as a cane, a wheelchair, a special bed, or a special telephone) due to a health problem. (N = 30,531)

<sup>&</sup>lt;sup>b</sup> Among all adults, the proportion who reported being limited in any activities because of physical, mental, or emotional problems. (N = 30,553)

c Among all adults, the proportion who reported that they required use of special equipment (such as a can, a wheelchair, a special bed, or a special telephone) due to a health problem. (N = 30,622)

Table 5: Weight Status by Prosperity Region Michigan BRFSS, 2015-2017 Combined

		Obese <sup>a</sup>	Overweight <sup>b</sup>		Healthy Weight <sup>c</sup>		Underweight <sup>d</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	32.0	(31.3-32.7)	35.0	(34.3-35.7)	31.3	(30.6-31.9)	1.7	(1.6-2.0)
Prosperity Region								
Upper Peninsula	33.3	(29.6-37.3)	34.5	(30.8-38.3)	30.0	(26.5-33.8)	2.2	(1.2-3.8)
Northwest	31.9	(28.9-35.1)	36.6	(33.5-39.9)	30.5	(27.4-33.7)	1.0	(0.5-1.9)
Northeast	38.3	(34.0-42.9)	35.5	(31.3-39.9)	24.9	(21.3-28.8)	e	e
West Michigan	31.0	(29.3-32.7)	34.7	(33.0-36.5)	32.7	(31.0-34.6)	1.5	(1.1-2.1)
East Central Michigan	37.8	(34.9-40.8)	34.2	(31.4-37.2)	27.1	(24.4-30.0)	0.9	(0.5-1.4)
East Michigan	34.6	(32.4-36.8)	35.7	(33.5-37.9)	28.0	(26.0-30.2)	1.7	(1.2-2.5)
South Central	32.4	(29.4-35.5)	33.6	(30.6-36.8)	32.4	(29.3-35.5)	1.7	(0.9-2.9)
Southwest	33.6	(31.1-36.1)	32.8	(30.3-35.4)	31.8	(29.3-34.5)	1.9	(1.1-3.0)
Southeast Michigan	31.2	(29.2-33.3)	34.5	(32.5-36.7)	32.9	(30.9-35.0)	1.3	(0.9-2.0)
Detroit Metro	31.0	(29.8-32.2)	35.8	(34.6-37.0)	31.3	(30.1-32.5)	2.0	(1.6-2.4)

Note: BMI, body mass index, is defined as weight (in kilograms) divided by height (in meters) squared [weight in kg/(height in meters)<sup>2</sup>]. Weight and height were self-reported. Pregnant women were excluded. (N = 29,588)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion of respondents whose BMI was greater than or equal to 30.0.

<sup>&</sup>lt;sup>b</sup> Among all adults, the proportion of respondents whose BMI was greater than or equal to 25.0, but less than 30.0.

<sup>&</sup>lt;sup>c</sup> Among all adults, the proportion of respondents whose BMI was greater than or equal to 18.5, but less than 25.0.

d Among all adults, the proportion of respondents whose BMI was less than 18.5.

e Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Table 6: Health Care Coverage Among Adults 18-64 Years Old by Prosperity Region Michigan BRFSS, 2015-2017 Combined					
	No Health Care Coverages (Among 18 - 64 year olds)  95% Confidence Interval				
Michigan Total	10.5	(10.0-11.1)			
Prosperity Region					
Upper Peninsula	8.6	(6.3-11.7)			
Northwest	11.0	(8.5-14.0)			
Northeast	13.9	(10.3-18.5)			
West Michigan	11.0	(9.6-12.7)			
East Central Michigan	11.8	(9.5-14.6)			
East Michigan	10.9	(9.2-12.9)			
South Central	9.6	(7.4-12.3)			
Southwest	10.7	(8.7-13.2)			
Southeast Michigan	8.7	(7.2-10.5)			
Detroit Metro	10.2	(9.3-11.2)			

<sup>&</sup>lt;sup>a</sup> Among adults aged 18-64 years, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare or Indian Health Services. (N = 20,832)

Table 7: Health Care Access by Prosperity Region Michigan BRFSS, 2015-2017 Combined						
		al Health Care ovider <sup>a</sup>	No Health Care Access During Past 12 Months Due to Cost <sup>b</sup>			
	%	95% Confidence Interval	onfidence % Confid			
Michigan Total	14.9	(14.3-15.4)	12.3	(11.8-12.8)		
Prosperity Region						
Upper Peninsula	12.6	(10.3-15.4)	9.2	(7.3-11.6)		
Northwest	14.3	(12.0-16.9)	11.1	(9.1-13.5)		
Northeast	16.3	(13.1-20.0)	12.2	(9.4-15.5)		
West Michigan	12.3	(11.0-13.7)	12.2	(11.0-13.5)		
East Central Michigan	13.6	(11.5-16.1)	10.8	(9.0-12.8)		
East Michigan	14.8	(13.1-16.7)	12.1	(10.7-13.8)		
South Central	16.4	(14.0-19.1)	10.8	(8.9-12.9)		
Southwest	18.9	(16.8-21.3)	11.6	(10.0-13.4)		
Southeast Michigan	14.1	(12.5-15.9)	11.9	(10.4-13.6)		
Detroit Metro	13.9	(13.0-14.9)	13.4	(12.5-14.3)		

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they did not have anyone that they thought of as their personal doctor or health care provider. (N = 31,668)

<sup>&</sup>lt;sup>b</sup> Among all adults, the proportion who reported that in the past 12 months, they could not see a doctor when they needed to due to the cost. (N = 31,777)

Table 8: No Leisure Time Physical Activity by Prosperity Region Michigan BRFSS, 2015-2017 Combined No Leisure Time Physical Activity<sup>a</sup> 95% Confidence % Interval Michigan Total 25.5 (24.9-26.2)**Prosperity Region** Upper Peninsula 25.7 (22.2-29.6)Northwest 23.5 (20.8-26.4)Northeast 28.3 (24.2-32.6)West Michigan 23.7 (22.2-25.3)East Central Michigan 26.3 (23.8-29.0)28.7 East Michigan (26.6-30.8)South Central 24.0 (21.3-27.0)Southwest 26.9 (24.6-29.4)

23.3

26.2

(21.5-25.3)

(25.1-27.4)

Southeast Michigan

**Detroit Metro** 

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported not participating in any leisure time physical activities or exercises such as running, calisthenics, golf, gardening, or walking during the past month. (N = 30,697)

Table 9: Aerobic Physical Activity and Muscle Strengthening by Prosperity Region Michigan BRFSS, 2015 and 2017 Combined **Adequate Aerobic Adequate Muscle Physical Activity** Strengthening (≥ 150 minutes / week)<sup>a</sup> (≥ 2 days / week)b 95% 95% % Confidence % Confidence Interval Interval **Michigan Total** 50.8 (49.8-51.7)29.7 (28.8-30.5)**Prosperity Region** Upper Peninsula 56.4 (50.9-61.8)27.3 (22.9 - 32.2)57.7 29.2 Northwest (53.4-61.9)(25.4-33.3)Northeast 51.1 (45.3-57.0)28.3 (23.3-33.8)West Michigan 52.0 (49.6-54.3)28.8 (26.7-31.0)East Central Michigan 49.5 (45.5-53.5)28.0 (24.7-31.7)East Michigan 50.1 (47.1-53.1)24.0 (21.5-26.6)South Central 51.8 (47.5-56.0)31.7 (27.9 - 35.7)49.3 Southwest (45.9-52.8)27.6 (24.6-30.8)Southeast Michigan 51.6 (48.9-54.4)31.1 (28.6 - 33.8)

(48.2-51.4)

30.9

(29.5 - 32.5)

49.8

**Detroit Metro** 

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities. (N = 18,074)

Among all adults, the proportion who reported that they do muscle strengthening activities on two or more days per week. (N = 18,411)

Table 10: Adequate Physical Activity by Prosperity Region Michigan BRFSS, 2015 and 2017 Combined Adequate Physical Activity<sup>a</sup> 95% Confidence % Interval Michigan Total 19.3 (18.6-20.1)**Prosperity Region** Upper Peninsula 20.8 (16.7-25.6)Northwest 21.0 (17.6-24.9)Northeast 18.0 (13.9-22.9)West Michigan 18.7 (16.9-20.7)East Central Michigan 18.1 (15.2-21.3)16.6 East Michigan (14.5-18.9)South Central 20.6 (17.4-24.2)Southwest 18.0 (15.4-20.8)Southeast Michigan 20.2 (18.1-22.4)19.9 **Detroit Metro** (18.7-21.3)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they do either moderate physical activities for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of moderate and vigorous physical activities <u>and</u> also participate in muscle strengthening activities on two or more days per week. (N = 17,886)

Table 11: Cigarette Smoking by Prosperity Region Michigan BRFSS, 2015-2017 Combined

, , , , , , , , , , , , , , , , , , , ,						
	Current Smoking <sup>a</sup>		Forme	r Smoking <sup>b</sup>	Never Smoked	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	20.2	(19.6-20.8)	26.3	(25.7-26.9)	53.5	(52.8-54.3)
Prosperity Region						
Upper Peninsula	20.7	(17.8-23.9)	30.3	(27.0-33.8)	49.0	(45.1-52.9)
Northwest	19.5	(17.0-22.4)	29.2	(26.4-32.1)	51.3	(48.0-54.5)
Northeast	23.1	(19.4-27.2)	32.7	(28.6-37.0)	44.3	(39.9-48.8)
West Michigan	18.2	(16.7-19.7)	26.7	(25.2-28.3)	55.1	(53.3-56.9)
East Central Michigan	20.6	(18.1-23.3)	27.6	(25.1-30.1)	51.9	(48.9-54.9)
East Michigan	24.4	(22.3-26.5)	28.7	(26.7-30.7)	46.9	(44.7-49.2)
South Central	17.6	(15.1-20.3)	22.7	(20.3-25.3)	59.7	(56.5-62.9)
Southwest	20.6	(18.4-22.9)	26.7	(24.6-29.0)	52.7	(50.0-55.4)
Southeast Michigan	17.1	(15.4-19.0)	27.2	(25.4-29.1)	55.7	(53.5-57.8)
Detroit Metro	21.3	(20.2-22.4)	25.5	(24.5-26.6)	53.1	(51.9-54.4)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life and that they smoke cigarettes now, either every day or on some days. (N = 30,819)

b Among all adults, the proportion who reported that they had ever smoked at least 100 cigarettes (5 packs) in their life, but they do not smoke cigarettes now. (N = 30,819)

#### **Table 12: Current Smokers Who Attempted to Quit** by Prosperity Region Michigan BRFSS, 2015-2017 Combined Tried to Quit Smoking One Day or Longer in Past Year<sup>a</sup> 95% Confidence % Interval **Michigan Total** 60.5 (58.8-62.2)**Prosperity Region** Upper Peninsula 58.3 (50.0-66.1)Northwest 52.4 (44.7-59.9)Northeast 51.3 (41.5-61.0)West Michigan 59.4 (54.8-63.7)East Central Michigan 57.3 (50.1-64.2)East Michigan 59.6 (54.5-64.5)

59.6

54.5

59.5

64.6

(51.3-67.4)

(48.1-60.7)

(53.6-65.1)

(61.7-67.3)

South Central

**Detroit Metro** 

Southeast Michigan

Southwest

<sup>&</sup>lt;sup>a</sup> Among current smokers, the proportion who reported that during the past 12 months, they had tried to quit smoking for one day or longer. (N = 5,080)

Table 13: Current Hookah Use by Prosperity Region Michigan BRFSS, 2015-2017 Combined

	1	
	Curren	t Hookah Use <sup>a</sup>
	%	95% Confidence Interval
Michigan Total	3.8	(3.4-4.2)
Prosperity Region		
Upper Peninsula	2.7	(1.5-4.7)
Northwest	3.2	(1.9-5.3)
Northeast	b	b
West Michigan	3.7	(2.9-4.7)
East Central Michigan	2.5	(1.6-4.1)
East Michigan	4.2	(3.0-6.0)
South Central	2.4	(1.4-4.3)
Southwest	3.0	(2.0-4.5)
Southeast Michigan	2.8	(2.0-3.9)
Detroit Metro	4.6	(3.9-5.4)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported smoking tobacco using a hookah, narghile, or water pipe on one or more days during the previous thirty day. (N = 19,263)

b Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Table 14: Alcohol Consumption by Prosperity Region Michigan BRFSS, 2015-2017 Combined

	-	cohol in Past Month <sup>a</sup> Heav		Drinking <sup>b</sup>	Binge Drinking <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	57.3	(56.6-58.1)	6.7	(6.4-7.1)	18.6	(18.0-19.2)
Prosperity Region						
Upper Peninsula	52.9	(49.0-56.8)	6.6	(4.9-8.8)	17.0	(14.4-20.0)
Northwest	56.5	(53.2-59.8)	10.8	(8.8-13.1)	16.9	(14.5-19.6)
Northeast	51.9	(47.5-56.3)	8.0	(5.8-11.0)	19.1	(15.8-22.9)
West Michigan	58.3	(56.5-60.1)	7.1	(6.2-8.1)	18.5	(17.1-20.0)
East Central Michigan	53.7	(50.7-56.7)	6.6	(5.3-8.2)	18.9	(16.6-21.5)
East Michigan	52.7	(50.4-54.9)	5.1	(4.2-6.2)	17.4	(15.7-19.3)
South Central	57.2	(53.9-60.4)	7.4	(5.9-9.2)	19.7	(17.2-22.4)
Southwest	53.4	(50.7-56.0)	6.5	(5.3-7.9)	17.2	(15.2-19.4)
Southeast Michigan	60.8	(58.6-62.9)	7.3	(6.2-8.5)	19.6	(17.8-21.6)
Detroit Metro	59.1	(57.9-60.3)	6.3	(5.7-6.9)	18.5	(17.5-19.5)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported consuming at least one drink of any alcoholic beverage in the previous month. (N = 30,588)

Among all adults, the proportion who reported consuming an average of more than two alcoholic drinks per day for men or more than one per day for women in the previous month. (N = 30,336)

<sup>&</sup>lt;sup>c</sup> Among all adults, the proportion who reported consuming five or more drinks per occasion (for men) or 4 or more drinks per occasion (for women) at least once in the previous month. (N = 30,345)

Table 15: Mean Number of Binge Drinking Occasions during the Past Month among Binge Drinkers by Prosperity Region Michigan BRFSS, 2015-2017 Combined

		of Binge Drinking ccasions <sup>a</sup>
	Mean	95% Confidence Interval
Michigan Total	5.8	(4.0-7.5)
Prosperity Region	5.6	(4.3-6.9)
Upper Peninsula	7	(4.6-9.3)
Northwest	4.6	(4.0-5.2)
Northeast	4.9	(4.0-5.8)
West Michigan	3.9	(3.3-4.5)
East Central Michigan	4.4	(3.6-5.2)
East Michigan	4.1	(3.3-4.8)
South Central	4.9	(3.5-6.3)
Southwest	4.5	(4.1-4.9)
Southeast Michigan	5.8	(4.0-7.5)
Detroit Metro	5.6	(4.3-6.9)

<sup>&</sup>lt;sup>a</sup> Among adults who binge drank in the past month, the mean number of times during which five or more alcoholic beverages (for men) or four or more (for women) were consumed during the past month. (N = 4,655)

Table 16: Seatbelt Use by Prosperity Region Michigan BRFSS, 2015-2017 Combined

	Always I	Jses a Seatbelt <sup>a</sup>
	%	95% Confidence Interval
Michigan Total	89.6	(89.1-90.1)
Prosperity Region		
Upper Peninsula	87.4	(84.4-89.8)
Northwest	90.6	(88.5-92.4)
Northeast	85.9	(82.3-89.0)
West Michigan	88.5	(87.2-89.7)
East Central Michigan	89.2	(86.9-91.1)
East Michigan	89.0	(87.4-90.4)
South Central	91.1	(88.8-92.9)
Southwest	88.4	(86.4-90.2)
Southeast Michigan	89.6	(88.0-91.1)
Detroit Metro	90.9	(90.1-91.7)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported always using a seatbelt when driving or riding in a car. (N = 30,029)

Table 17: Hypertension Awareness and Medication Use by Prosperity Region Michigan BRFSS, 2015 and 2017 Combined

	Ever Told HBP <sup>a</sup>		Taking BP Medication <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	33.9	(33.1-34.7)	77.5	(76.2-78.7)
Prosperity Region				
Upper Peninsula	34.8	(30.3-39.5)	83.6	(77.2-88.4)
Northwest	34.1	(30.4-38.1)	74.5	(67.8-80.2)
Northeast	39.6	(34.4-45.1)	83.3	(76.3-88.6)
West Michigan	31.8	(29.9-33.8)	79.0	(75.8-81.8)
East Central Michigan	34.6	(31.2-38.1)	78.0	(72.6-82.6)
East Michigan	37.9	(35.2-40.6)	73.3	(68.9-77.3)
South Central	33.6	(29.9-37.5)	74.6	(67.5-80.7)
Southwest	33.5	(30.7-36.5)	81.3	(76.9-85.0)
Southeast Michigan	30.9	(28.6-33.2)	76.9	(72.7-80.5)
Detroit Metro	35.4	(34.0-36.8)	78.0	(75.8-80.1)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they were ever told by a doctor that they had high blood pressure (HBP). Women who had HBP only during pregnancy and adults who were borderline hypertensive were considered to not have been diagnosed. (N = 19,766)

Among adults who were ever told that they had HBP, the proportion that reported they were currently taking blood pressure (BP) medicines for their HBP. (N = 7,905)

Table 18: Cholesterol Screening and Awareness by Prosperity Region Michigan BRFSS, 2015 and 2017 Combined

		sterol Ever lecked <sup>a</sup>	Checked Within Past Five Years <sup>b</sup>				Five Ever Told High Cholesterol <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval		
Michigan Total	88.2	(87.6-88.9)	84.2	(83.4-84.9)	36.5	(35.7-37.4)		
Prosperity Region								
Upper Peninsula	85.5	(80.4-89.4)	81.4	(76.2-85.7)	39.4	(34.4-44.6)		
Northwest	87.7	(84.0-90.6)	83.7	(79.8-86.9)	43.0	(38.8-47.4)		
Northeast	87.3	(82.9-90.6)	84.8	(80.3-88.4)	43.1	(37.4-49.0)		
West Michigan	88.0	(86.0-89.8)	83.9	(81.7-85.8)	33.7	(31.6-35.8)		
East Central Michigan	87.6	(84.5-90.2)	83.5	(80.2-86.4)	38.2	(34.4-42.2)		
East Michigan	90.1	(88.0-91.9)	84.4	(81.9-86.7)	38.7	(35.8-41.6)		
South Central	86.1	(82.5-89.1)	82.6	(78.8-85.8)	35.2	(31.2-39.4)		
Southwest	86.4	(83.6-88.9)	81.2	(78.1-83.9)	36.4	(33.3-39.7)		
Southeast Michigan	87.0	(84.7-89.0)	82.9	(80.4-85.1)	36.7	(34.1-39.3)		
Detroit Metro	90.3	(89.2-91.3)	86.6	(85.4-87.8)	36.8	(35.3-38.3)		

a Among all adults, the proportion who reported ever having had their blood cholesterol checked. (N = 19,057)

b Among all adults, the proportion who reported that they have had their blood cholesterol checked within the past five years. (N = 18,938)

c Among adults who ever had their blood cholesterol checked, the proportion who reported that a doctor, nurse, or other health professional had told them that their cholesterol was high. (N = 17,490)

Table 19: No Routine Checkup in Past Year by Prosperity Region Michigan BRFSS, 2015-2017 Combined

	Had No Rout	Had No Routine Checkup in Past Year <sup>a</sup>		
	%	95% Confidence Interval		
Michigan Total	27.1	(26.5-27.8)		
Prosperity Region				
Upper Peninsula	27.9	(24.5-31.5)		
Northwest	28.0	(25.1-31.1)		
Northeast	28.0	(24.1-32.3)		
West Michigan	26.9	(25.3-28.6)		
East Central Michigan	26.4	(23.7-29.2)		
East Michigan	27.6	(25.5-29.7)		
South Central	26.1	(23.4-29.1)		
Southwest	29.3	(26.8-31.8)		
Southeast Michigan	28.3	(26.3-30.3)		
Detroit Metro	25.8	(24.7-26.9)		

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they did not have a routine checkup in the past year. (N = 31,503)

Table 20: Colorectal Cancer Screening (Blood Stool Test) Among Adults Aged
50 Years and Older by Prosperity Region
Michigan BRFSS, 2015-2017 Combined

		er Had Stool Test <sup>a</sup>	Had Blood Stool Test in Past Two Years <sup>b</sup>		
	%	95% Confidence Interval	%	95% Confidence Interval	
Michigan Total	33.8	(33.0-34.7)	12.0	(11.4-12.6)	
Prosperity Region					
Upper Peninsula	35.3	(31.2-39.6)	10.6	(8.1-13.9)	
Northwest	31.2	(27.9-34.7)	11.0	(8.8-13.8)	
Northeast	32.0	(27.3-37.1)	8.1	(5.8-11.2)	
West Michigan	34.3	(32.3-36.3)	9.5	(8.4-10.8)	
East Central Michigan	42.3	(38.9-45.8)	16.8	(14.2-19.7)	
East Michigan	35.2	(32.7-37.9)	15.7	(13.7-17.8)	
South Central	44.9	(40.8-49.1)	15.0	(12.2-18.4)	
Southwest	36.6	(33.6-39.8)	14.0	(11.8-16.5)	
Southeast Michigan	31.4	(29.1-33.7)	10.3	(8.9-12.0)	
Detroit Metro	31.1	(29.7-32.5)	11.5	(10.6-12.5)	

<sup>&</sup>lt;sup>a</sup> Among adults aged 50 years and older, the proportion who reported ever having a blood stool test using a home kit. (N = 18,807)

Among adults aged 50 years and older, the proportion whose reported having a blood stool test within the past two years using a home kit. (N = 17,230)

Table 21: Colorectal Cancer Screening (Sigmoidoscopy/Colonoscopy) Among Adults Aged
50 Years and Older by Prosperity Region
Michigan BRFSS, 2015-2017 Combined

		Sigmoidoscopy onoscopy <sup>a</sup>	Had a Sigmoidoscopy or Colonoscopy in Past 5 Years <sup>b</sup>		Had a Sigmoidoscopy in Past 5 Years or Colonoscopy in Past 10 Years <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	74.6	(73.8-75.4)	55.4	(54.5-56.3)	68.6	(67.7-69.4)
Prosperity Region						
Upper Peninsula	73.7	(69.4-77.5)	53.3	(48.7-57.9)	68.1	(63.6-72.4)
Northwest	76.8	(73.3-80.0)	57.5	(53.6-61.2)	70.0	(66.2-73.5)
Northeast	71.4	(66.2-76.1)	49.5	(44.0-55.0)	64.7	(59.2-69.8)
West Michigan	79.0	(77.1-80.7)	56.5	(54.3-58.6)	71.9	(69.9-73.9)
East Central Michigan	73.9	(70.5-77.1)	57.5	(53.9-61.0)	68.4	(64.9-71.8)
East Michigan	73.5	(71.0-76.0)	55.4	(52.6-58.2)	68.1	(65.4-70.7)
South Central	78.4	(74.5-81.9)	57.0	(52.7-61.2)	71.8	(67.6-75.6)
Southwest	72.1	(69.0-75.1)	52.2	(49.0-55.5)	65.9	(62.6-69.0)
Southeast Michigan	78.7	(76.4-80.8)	59.3	(56.7-61.8)	72.4	(69.9-74.7)
Detroit Metro	72.6	(71.1-74.0)	54.5	(52.9-56.1)	66.9	(65.4-68.5)

<sup>&</sup>lt;sup>a</sup> Among adults aged 50 years and older, the proportion who reported ever having a sigmoidoscopy or colonoscopy. (N = 18,835) <sup>b</sup> Among adults aged 50 years and older, the proportion who reported having a sigmoidoscopy or colonoscopy in the past five years. (N = 18,608)

Among adults aged 50 years and older, the proportion who reported having a sigmoidoscopy in the past five years or a colonoscopy in the past ten years. (N = 18,360)

Table 22: Appropriate Colorectal Cancer Screening Among Adults Aged 50 Years and Older by Prosperity Region Michigan BRFSS, 2015-2017 Combined

Milonigan Biti 60, 201	<u> </u>	Jiiica
		ate Colorectal · Screening <sup>a</sup>
	%	95% Confidence Interval
Michigan Total	71.4	(70.6-72.2)
Prosperity Region		
Upper Peninsula	71.2	(66.7-75.3)
Northwest	72.0	(68.3-75.4)
Northeast	66.1	(60.7-71.1)
West Michigan	74.3	(72.3-76.2)
East Central Michigan	71.6	(68.2-74.8)
East Michigan	71.1	(68.4-73.6)
South Central	75.5	(71.5-79.2)
Southwest	69.8	(66.7-72.8)
Southeast Michigan	74.4	(72.0-76.7)
Detroit Metro	69.9	(68.3-71.3)

<sup>&</sup>lt;sup>a</sup> Among adults aged 50 years and older, the proportion who reported having either a fecal occult blood test within the past year, a sigmoidoscopy within the past five years, or a colonoscopy within the past ten years. (N = 18,403)

Table 23: Immunizations among Adults Aged 65 Years and Older by Prosperity Region
Michigan BRFSS, 2015-2017 Combined

		Had Flu Vaccine in Past Year <sup>a</sup>		er Had nia Vaccine <sup>b</sup>
	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	58.0	(56.8-59.2)	73.5	(72.3-74.6)
Prosperity Region				
Upper Peninsula	60.4	(54.1-66.4)	67.9	(61.5-73.7)
Northwest	63.4	(58.0-68.5)	78.3	(72.9-82.8)
Northeast	54.4	(46.8-61.9)	70.2	(62.6-76.8)
West Michigan	58.3	(55.2-61.2)	77.7	(75.1-80.2)
East Central Michigan	55.8	(50.9-60.6)	74.7	(70.5-78.5)
East Michigan	54.0	(50.2-57.8)	71.4	(67.9-74.7)
South Central	60.0	(54.4-65.3)	74.2	(68.8-79.0)
Southwest	59.8	(55.3-64.0)	77.3	(73.3-80.8)
Southeast Michigan	57.3	(53.6-60.9)	76.5	(73.2-79.4)
Detroit Metro	58.2	(56.1-60.3)	70.8	(68.7-72.8)

<sup>&</sup>lt;sup>a</sup> Among adults aged 65 years and older, the proportion who reported that they had a flu vaccine, either by an injection in the arm or sprayed in the nose during the past 12 months. (N = 10,070)

b Among adults aged 65 years and older, the proportion who reported that they ever had a pneumococcal vaccine. (N = 9,842)

Table 24: HIV Testing among Adults Aged 18 - 64 Years	S
by Prosperity Region	

Michigan BRFSS, 2015-2017 Combined					
	Ever Had an HIV Test <sup>a</sup>				
	%	95% Confidence Interval			
Michigan Total	42.8	(41.9-43.7)			
Prosperity Region					
Upper Peninsula	36.0	(31.5-40.8)			
Northwest	37.8	(33.9-41.9)			
Northeast	33.8	(28.7-39.3)			
West Michigan	39.3	(37.2-41.5)			
East Central Michigan	34.9	(31.5-38.5)			
East Michigan	40.9	(38.1-43.8)			
South Central	41.1	(37.3-45.0)			
Southwest	42.0	(38.7-45.4)			
Southeast Michigan	41.4	(38.8-44.1)			
Detroit Metro	47.8	(46.3-49.4)			

Among adults aged 18 - 64 years, the proportion who reported that they ever had been tested for HIV, apart from tests that were part of a blood donation.
 Don't know was considered a valid response to this question. (N = 18,853)

Table 25: Asthma among Adults by Prosperity Region Michigan BRFSS, 2015-2017 Combined

	Lifetime Asthma Prevalence <sup>a</sup>		Current Asthma Prevalence	
	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	16.0	(15.5-16.6)	10.7	(10.2-11.1)
Prosperity Region				
Upper Peninsula	16.4	(13.6-19.6)	11.5	(9.1-14.3)
Northwest	13.2	(11.2-15.5)	9.6	(7.9-11.7)
Northeast	15.7	(12.8-19.1)	11.8	(9.3-14.7)
West Michigan	14.7	(13.5-16.0)	9.6	(8.6-10.7)
East Central Michigan	16.0	(13.7-18.5)	11.2	(9.3-13.5)
East Michigan	16.8	(15.2-18.6)	11.9	(10.5-13.5)
South Central	16.3	(14.0-18.8)	11.0	(9.2-13.1)
Southwest	16.3	(14.4-18.4)	10.9	(9.4-12.7)
Southeast Michigan	17.2	(15.5-19.0)	10.6	(9.4-12.1)
Detroit Metro	16.2	(15.3-17.2)	10.7	(10.0-11.5)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they were ever told by a doctor, nurse, or other health care professional that they had asthma. (N = 31,721)

b Among all adults, the proportion who reported that they still had asthma. (N = 31,559)

Table 26: Asthma among Children by Prosperity Region Michigan BRFSS, 2015-2017 Combined

		fetime Prevalence <sup>a</sup>	Current Asthma Prevalence <sup>b</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	12.0	(11.1-12.9)	8.5	(7.7-9.3)
Prosperity Region				
Upper Peninsula	10.2	(6.3-16.0)	c	c
Northwest	7.7	(4.8-11.9)	4.7	(2.6-8.4)
Northeast	8.6	(4.7-15.2)	c	c
West Michigan	10.9	(8.9-13.4)	7.8	(6.0-10.1)
East Central Michigan	9.8	(6.7-14.1)	6.4	(4.0-10.1)
East Michigan	10.8	(8.6-13.5)	7.6	(5.8-10.0)
South Central	12.3	(9.0-16.7)	7.8	(5.4-11.3)
Southwest	7.8	(5.5-10.9)	5.3	(3.5-7.9)
Southeast Michigan	13.3	(10.9-16.1)	10.2	(8.0-12.7)
Detroit Metro	14.6	(13.0-16.4)	10.6	(9.2-12.2)

<sup>&</sup>lt;sup>a</sup> Estimated proportion of Michigan children aged 0-17 years who were ever told by a doctor, nurse or other health professional that they had asthma, using proxy information from the adult respondent. (N = 7,023).

b Estimated proportion of Michigan children aged 0-17 years who still have asthma, using proxy information from the adult respondent. (N = 6,996)

<sup>&</sup>lt;sup>c</sup> Suppressed due to a denominator < 50 and/or a relative standard error > 30%.

Table 27: Chronic Obstructive Pulmonary Disease (COPD)
by Prosperity Region

Michigan BRFSS, 2015-2017 Combined					
		Ever Told COPD, Emphysema or Chronic Bronchitis <sup>a</sup>			
	%	95% Confidence Interval			
Michigan Total	8.5	(8.1-8.8)			
Prosperity Region					
Upper Peninsula	8.4	(6.7-10.5)			
Northwest	8.4	(6.8-10.2)			
Northeast	12.8	(10.1-16.2)			
West Michigan	7.2	(6.4-8.1)			
East Central Michigan	9.3	(7.8-11.2)			
East Michigan	10.9	(9.6-12.3)			
South Central	7.1	(5.7-9.0)			
Southwest	8.3	(7.0-9.8)			
Southeast Michigan	7.5	(6.4-8.6)			
Detroit Metro	8.7	(8.1-9.4)			

Among all adults, the proportion who reported ever being told by a doctor that they
had chronic obstructive pulmonary disease (COPD), emphysema or chronic
bronchitis. (N = 31,688)

Table 28: Arthritis by Prosperity Region Michigan BRFSS, 2015-2017 Combined				
	Ever Told Arthritis <sup>a</sup> 95% Confidence Interval			
Michigan Total	30.8 (30.2-31			
Prosperity Region				
Upper Peninsula	34.6	(31.2-38.1)		
Northwest	34.1	(31.2-37.1)		
Northeast	42.3	(38.1-46.6)		
West Michigan	29.8	(28.3-31.3)		
East Central Michigan	33.2	(30.7-35.9)		
East Michigan	35.1	(33.1-37.2)		
South Central	28.4	(25.8-31.2)		
Southwest	31.7	(29.4-34.0)		
Southeast Michigan	30.4	(28.6-32.3)		
Detroit Metro	30.4	(29.3-31.4)		

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. (N = 31,676)

Table 29: Cardiovascular Disease by Prosperity Region Michigan BRFSS, 2015-2017 Combined

		ver Told art Attack <sup>a</sup>	Had Told Angina or Coronary Heart Disease <sup>b</sup>		Ever Told Stroke <sup>c</sup>		Ever Told Any Cardiovascular Disease <sup>d</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	5.0	(4.7-5.3)	5.0	(4.7-5.3)	3.5	(3.3-3.8)	9.8	(9.5-10.2)
Prosperity Region								
Upper Peninsula	5.7	(4.3-7.6)	6.5	(4.9-8.5)	4.1	(2.9-5.7)	11.5	(9.4-13.9)
Northwest	6.3	(4.9-8.1)	6.1	(4.7-7.9)	3.8	(2.7-5.3)	12.1	(10.1-14.4)
Northeast	8.4	(6.2-11.3)	9.0	(6.8-11.8)	4.8	(3.2-7.2)	14.1	(11.3-17.4)
West Michigan	4.0	(3.5-4.7)	3.8	(3.3-4.4)	2.6	(2.2-3.1)	7.8	(7.1-8.7)
East Central Michigan	6.7	(5.4-8.2)	6.6	(5.3-8.1)	3.7	(2.7-4.9)	11.6	(10.0-13.5)
East Michigan	6.4	(5.5-7.5)	6.4	(5.4-7.4)	4.1	(3.3-5.0)	12.0	(10.7-13.4)
South Central	3.9	(3.0-5.1)	4.1	(3.1-5.3)	3.3	(2.4-4.6)	8.8	(7.3-10.5)
Southwest	5.9	(4.8-7.2)	5.4	(4.5-6.5)	3.7	(2.8-4.8)	10.7	(9.3-12.3)
Southeast Michigan	4.7	(4.0-5.6)	4.2	(3.5-5.0)	3.1	(2.4-3.9)	9.2	(8.1-10.4)
Detroit Metro	4.8	(4.3-5.3)	5.0	(4.5-5.4)	3.9	(3.5-4.3)	9.9	(9.2-10.6)

Among all adults, the proportion who had ever been told by a doctor that...

a they had a heart attack or myocardial infarction (N = 31,702)

b they had angina or coronary heart disease (N = 31,588)

they had a stroke. (N = 31,763)

d they had a heart attack, coronary heart disease or a stroke. (N = 31,564)

# Table 30: Cancer by Prosperity Region Michigan BRFSS, 2015-2017 Combined

			d Any Other of Cancer <sup>b</sup> Ever Told C		old Cancer <sup>c</sup>	
	%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	6.0	(5.7-6.2)	7.9	(7.6-8.2)	12.4	(12.0-12.8)
Prosperity Region						
Upper Peninsula	5.9	(4.5-7.6)	9.3	(7.5-11.4)	14.2	(11.9-16.7)
Northwest	7.6	(6.3-9.1)	9.0	(7.4-10.8)	15.4	(13.5-17.6)
Northeast	7.8	(5.8-10.5)	10.1	(7.6-13.2)	15.8	(12.9-19.2)
West Michigan	6.5	(5.8-7.2)	7.7	(7.0-8.6)	12.8	(11.8-13.8)
East Central Michigan	5.6	(4.6-6.7)	8.1	(6.9-9.6)	12.5	(10.9-14.1)
East Michigan	6.0	(5.2-7.0)	8.7	(7.6-9.9)	13.2	(11.9-14.6)
South Central	6.7	(5.5-8.2)	6.7	(5.4-8.1)	12.0	(10.4-13.9)
Southwest	6.5	(5.5-7.5)	8.3	(7.2-9.6)	13.2	(11.8-14.8)
Southeast Michigan	7.0	(6.2-8.0)	7.0	(6.1-8.0)	12.5	(11.3-13.8)
Detroit Metro	5.2	(4.7-5.6)	8.0	(7.4-8.6)	11.8	(11.1-12.5)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had skin cancer. (N = 31,778)

b Among all adults, the proportion who reported ever being told by a doctor that they had a form of cancer other than skin cancer. (N = 31,780)

c Among all adults, the proportion who reported ever being told by a doctor that they had skin cancer or any other type of cancer. (N = 31,735)

Table 31: Diabetes by Prosperity Region Michigan BRFSS, 2015-2017 Combined				
	Ever Told Diabetes <sup>a</sup> 95%  Confidence Interval			
Michigan Total	11.0	(10.6-11.4)		
Prosperity Region				
Upper Peninsula	12.9	(10.6-15.5)		
Northwest	10.1	(8.5-12.1)		
Northeast	16.4	(13.3-20.1)		
West Michigan	10.3	(9.3-11.4)		
East Central Michigan	12.2	(10.5-14.1)		
East Michigan	12.6	(11.2-14.1)		
South Central	9.3	(7.8-11.1)		
Southwest	11.8	(10.4-13.4)		
Southeast Michigan	10.3	(9.1-11.6)		
Detroit Metro	11.0	(10.4-11.8)		

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported that they were ever told by a doctor that they had diabetes. Adults told they have prediabetes and women who had diabetes only during pregnancy were classified as not having been diagnosed. (N = 31,800)

Table 32: Kidney Disease by Prosperity Region Michigan BRFSS, 2015-2017 Combined **Ever Told** Kidney Disease<sup>a</sup> 95% Confidence % Interval Michigan Total 3.6 (3.4-3.9)**Prosperity Region** Upper Peninsula 4.6 (3.4-6.2)Northwest 4.7 (3.5-6.4)Northeast 5.5 (3.6-8.2)West Michigan 3.2 (2.7-3.8)East Central Michigan 3.7 (2.8-4.9)East Michigan 3.7 (3.0-4.6)South Central 3.2 (2.3-4.4)Southwest 4.0 (3.2-5.0)Southeast Michigan 3.5 (2.8-4.3)3.7 **Detroit Metro** (3.3-4.1)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had kidney disease. (N = 31,742)

Table 33: Depression by Prosperity Region Michigan BRFSS, 2015-2017 Combined **Ever Told Depression**<sup>a</sup> 95% Confidence % Interval Michigan Total 21.7 (21.2-22.3)**Prosperity Region** Upper Peninsula 23.2 (20.1-26.6)22.6 Northwest (20.0-25.5)Northeast 21.9 (18.5-25.7)West Michigan 23.6 (22.1-25.2)East Central Michigan 23.6 (21.0-26.4)East Michigan 21.1 (19.3-23.0)South Central 22.1 (19.5-24.8)Southwest 24.4 (22.2-26.8)Southeast Michigan 23.7 (21.9-25.7)**Detroit Metro** 20.2 (19.3-21.3)

<sup>&</sup>lt;sup>a</sup> Among all adults, the proportion who reported ever being told by a doctor that they had a depressive disorder including depression, major depression, dysthymia, or minor depression. (N = 31,698)